

Appln No. 09/578,355
Amdt date May 30, 2006
Reply to Office action of February 27, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 58. (Canceled)

59. (New) An audio system for reproducing six independent original audio signals at six reproduction points in an audio space, wherein said six independent original audio signals are a center signal reproduced at front center in the audio space, left and right front signals reproduced at front left and right sides in the audio space, left and right rear signals reproduced at rear left and right sides in the audio space, and a bass audio signal, the audio system comprising:

a first processing portion for producing a first processed sound signal by delaying and attenuating an amplitude level of one of the left and right front signals in accordance with a distance between the reproduction point of said one of the left and right front signals and the reproduction point of one of the left and right rear signals;

a second processing portion for producing a second processed sound signal by delaying and attenuating an amplitude level of one of the left and right rear signals in accordance with a distance between the reproduction point of said one of the left and right rear signals and the reproduction point of one of the left and right front signals;

a first adding portion for adding said first processed sound signal to said one of the left and right rear signals; and

a second adding portion for adding said second processed sound signal to said one of the left and right front signals;

wherein said first and second processing portions attenuate the respective amplitude level in accordance with a predetermined stereo audio effect.

60. (New) An audio system according to claim 59, further comprising:
a third processing portion for producing a third processed sound signal by delaying and attenuating an amplitude level of the center signal in accordance with a distance between the reproduction point of said center signal and the reproduction point of one of the left and right rear signals; and
a third adding portion for adding said third processed sound signal to said one of the left and right rear signals;
wherein said third processing portion attenuates the amplitude level in accordance with a predetermined stereo audio effect.

61. (New) An audio system according to claim 60, further comprising:
a fourth processing portion for producing a fourth processed sound signal by delaying and attenuating an amplitude level of one of the left and right rear signals in accordance with a distance between the reproduction point of said one of the left and right rear signals and the reproduction point of the center signal; and
a fourth adding portion for adding said fourth processed sound signal to said center signal;
wherein said fourth processing portion attenuates the amplitude level in accordance with a predetermined stereo audio effect.

62. (New) An audio system according to claim 59, wherein said first and second processing portions correct a frequency characteristic of each processed sound signal.

63. (New) An audio system according to claim 59, wherein said system is equipped with a multichannel player unit for reproducing said six independent original audio signals recorded on a recording medium by a multichannel recording system.

64. (New) An audio system according to claim 59, wherein said system is equipped with a switch for setting a priority mode to determine a listening point in said audio space which receives optimum sound, and said amplitude levels are changed in accordance with the setting of said switch.

65. (New) An audio system according to claim 59, wherein said predetermined stereo audio effect is the law of the first wave front (Haas effect).

66. (New) An audio system for reproducing six independent original audio signals at six reproduction points in an audio space, wherein said six independent original audio signals are a center signal reproduced at front center in the audio space, left and right front signals reproduced at front left and right sides in the audio space, left and right rear signals reproduced at rear left and right sides in the audio space, and a bass audio signal, the audio system comprising:

- a first adding portion for adding said left and right front signals to make a first added signal;

- a second adding portion for adding said left and right rear signals to make a second added signal;

- a first processing portion for producing a first processed sound signal by delaying and attenuating an amplitude level of said first added signal in accordance with a distance between the reproduction point of one of the left and right front signals and the reproduction point of one of the left and right rear signals;

- a second processing portion for producing a second processed sound signal by delaying and attenuating an amplitude level of said second added signal in accordance with a distance between the reproduction point of one of the left and right rear signals and the reproduction point of said center signal;

- a third adding portion for adding said first processed sound signal to said left and right rear signals; and

a fourth adding portion for adding said second processed sound signal to said left and right front signals;

wherein said first and second processing portions attenuate the respective amplitude level in accordance with a predetermined stereo audio effect.

67. (New) An audio system according to claim 66, wherein said first adding portion produces said first added signal by further adding said center signal.

68. (New) An audio system according to claim 66, further comprising a fifth adding portion for adding said second processed sound signal to said center signal.

69. (New) An audio system according to claim 66, further comprising:
a third processing portion for producing a third processed sound signal by delaying and attenuating an amplitude level of said second added signal in accordance with a distance between the reproduction point of one of the left and right rear signals and the reproduction point of said center signal; and

a sixth adding portion for adding said third processed sound signal to said left and right front signals;

wherein said third processing portion attenuates the amplitude level of the second added signal in accordance with a predetermined stereo audio effect.

70. (New) An audio system according to claim 66, wherein said first and second processing portions correct a frequency characteristic of each processed sound signal.

71. (New) An audio system according to claim 66, wherein said system is equipped with a multichannel player unit for reproducing said six independent original audio signals recorded on a recording medium by a multichannel recording system.

72. (New) An audio system according to claim 66, wherein said system is equipped with a switch for setting a priority mode to determine a listening point in said audio space which receives optimum sound, and said amplitude levels are changed in accordance with the setting of said switch.

73. (New) An audio system according to claim 66, wherein said predetermined stereo audio effect is the law of the first wave front (Haas effect).

74. (New) A method of reproducing six independent original audio signals at six reproduction points in an audio space, wherein said six independent original audio signals are a center signal reproduced at front center in the audio space, left and right front signals reproduced at front left and right sides in the audio space, left and right rear signals reproduced at rear left and right sides in the audio space, and a bass audio signal, the method comprising:

producing a first processed sound signal by delaying and attenuating an amplitude level of one of the left and right front signals in accordance with a distance between the reproduction point of said one of the left and right front signals and the reproduction point of one of the left and right rear signals;

producing a second processed sound signal by delaying and attenuating an amplitude level of one of the left and right rear signals in accordance with a distance between the reproduction point of said one of the left and right rear signals and the reproduction point of one of the left and right front signals;

adding said first processed sound signal to said one of the left and right rear signals;

adding said second processed sound signal to said one of the left and right front signals;

and

attenuating the amplitude levels in accordance with a predetermined stereo audio effect.

75. (New) A method of reproducing audio signals according to claim 74, the method further comprising:

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producing a third processed sound signal by delaying and attenuating an amplitude level of the center signal in accordance with a distance between the reproduction point of said center signal and the reproduction point of one of the left and right rear signals;

adding said third processed sound signal to said one of the left and right rear signals; and
attenuating the amplitude level of the center signal in accordance with a predetermined stereo audio effect.

76. (New) A method of reproducing audio signals according to claim 74, the method further comprising:

producing a fourth processed sound signal by delaying and attenuating an amplitude level of one of the left and right rear signals in accordance with a distance between the reproduction point of said one of the left and right rear signals and the reproduction point of the center signal;

adding said fourth processed sound signal to said center signal; and
attenuating the amplitude level of said one of the left and right rear signals in accordance with a predetermined stereo audio effect.

77. (New) A method of reproducing audio signals according to claim 74, wherein a frequency characteristic of each processed sound signal is corrected.

78. (New) A method of reproducing audio signals according to claim 74, wherein said six independent original audio signals are supplied from a multichannel player unit which reproduces audio signals recorded on a recording medium by a multichannel recording system.

79. (New) A method of reproducing audio signals according to claim 74, wherein a priority mode which determines a listening point in said audio space for receiving optimum sound is set, and said amplitude levels are changed in accordance with the setting of said priority mode.

80. (New) A method of reproducing audio signals according to claim 74, wherein said predetermined stereo audio effect is the law of the first wave front (Haas effect).

81. (New) A method of reproducing six independent original audio signals at six reproduction points in an audio space, wherein said six independent original audio signals are a center signal reproduced at front center in the audio space, left and right front signals reproduced at front left and right sides in the audio space, left and right rear signals reproduced at rear left and right sides in the audio space, and a bass audio signal, the method comprising:

- adding said left and right front signals to make a first added signal;
- adding said left and right rear signals to make a second added signal;
- producing a first processed sound signal by delaying and attenuating an amplitude level of said first added signal in accordance with a distance between the reproduction point of one of the left and right front signals and the reproduction point of one of the left and right rear signals;
- producing a second processed sound signal by delaying and attenuating an amplitude level of said second added signal in accordance with a distance between the reproduction point of one of the left and right rear signals and the reproduction point of center signal;
- adding said first processed sound signal to said left and right rear signals;
- adding said second processed sound signal to said left and right front signals; and
- attenuating the amplitude levels in accordance with a predetermined stereo audio effect.

82. (New) A method of reproducing audio signals according to claim 81, wherein said first added signal is produced by further adding said center signal.

83. (New) A method for reproducing audio signals according to claim 81, wherein said second processed sound signal is added to said center signal.

84. (New) A method for reproducing audio signals according to claim 81, the method further comprising:

producing a third processed sound signal by delaying and attenuating an amplitude level of said second added signal in accordance with a distance between the reproduction point of one of the left and right rear signals and the reproduction point of said center signal;

adding said third processed sound signal to said left and right front signals; and

attenuating the amplitude level of the second added signal in accordance with a predetermined stereo audio effect.

85. (New) A method of reproducing audio signals according to claim 81, wherein a frequency characteristic of each processed sound signal is corrected.

86. (New) A method of reproducing audio signals according to claim 81, wherein said six independent original audio signals are supplied from a multichannel player unit which reproduces audio signals recorded on a recording medium by a multichannel recording system.

87. (New) A method of reproducing audio signals according to claim 81, wherein a priority mode which determines a listening point in said audio space for receiving optimum sound is set, and said amplitude levels are changed in accordance with the setting of said priority mode.

88. (New) A method of reproducing audio signals according to claim 81, wherein said predetermined stereo audio effect is the law of the first wave front (Hass effect).